



Submit by 2359 GMT on Monday 29 January 2018

Darwin Initiative Application for Grant for Round 24: Stage 2

Before completing this form, please read both the Fair Processing Notice on pages 17 and 18 of this form and the [Guidance](#). Where no word limits are given, the size of the box is a guide to the amount of information required. Information to be extracted to the database is highlighted blue. Blank cells may render your application ineligible

Eligibility

1. Name and address of organisation

(NB: Notification of results will be by email to the Project Leader in Question 6)

Applicant Organisation Name:	SEED Madagascar
Address:	Suite 7, 1a Beethoven Street
City and Postcode:	London W10 4LG
Country:	United Kingdom
Email:	
Phone:	

2. Stage 1 reference and Project title

Stage 1 Ref: 4213	Title (max 10 words): Promoting community-based management for secure fisheries, biodiversity and livelihoods, Madagascar
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3. Summary of Project

Please provide a brief summary of your project, its aims, and the key activities you plan on undertaking. Please note that if you are successful, this wording may be used by Defra in communications e.g. as a short description of the project on [GOV.UK](#). Please bear this in mind, and write this summary for a non-technical audience.

(max 80 words)

The project will assist the recovery of an overexploited, economically crucial lobster fishery, safeguarding biodiversity while promoting economic development. Economic incentives will catalyse engagement with fishery management, establishing conditions for permanent reserves and broader coastal conservation.

A proven, adaptive, community-based model will be refined and extended to two further communities. Outreach activities and collaboration with government and private sector stakeholders will foster replication and improve environmental governance across the regional fishery, securing ecological and economic impacts beyond the project lifespan.

4. Country(ies)

Which eligible host country(ies) will your project be working in? You may copy and paste this table if you need to provide details of more than four countries.

Country 1: Madagascar	Country 2: Not applicable (N/A)
Country 3: N/A	Country 4: N/A

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5. Project dates, and budget summary

Start date: 01 July 2018		End date: 31 March 2021		Duration: 33 months	
Darwin funding request (Apr – Mar)	2018/19 £100,480	2019/20 £92,085	2020/21 £92,153	Total £284,719	
Proposed (confirmed & unconfirmed) matched funding as % of total Project cost					2%

6. Partners in project. Please provide details of the partners in this project and provide a CV for the individuals listed. You may copy and paste this table if necessary.

Details	Project Leader	Project Partner 1	Project Partner 2
Surname	Bass	Jones	Harris
Forename (s)	Lisa	Peter	Alasdair
Post held	Director of Programmes and Operations	Reader in Environmental Governance	Executive Director
Organisation (if different to above)	SEED Madagascar	University college London (Department of Geography)	Blue Ventures
Telephone			
Email			

Details	Project Partner 3	Project Partner 4	Project Partner 5
Surname	Rakotondrazafy	Ramaro	Assanaly
Forename (s)	Vatasoa	Gio	Valencia
Post held	MIHARI Network Coordinator	Director	Director
Organisation (if different to above)	MIHARI	DRRHP - Regional Directorate of Fisheries	URL – Lobster Research Unit
Telephone			
Email			

Details	Project Partner 6	Project Partner 7	Project Partner 8
Surname	Ducas	Rakotoarison	Warnier
Forename (s)	Alain	Jean Patrick	Bastien
Post held	Director of Operations	Director	Owner and Director
Organisation (if different to above)	Madapeché	Le Martin Pecheur	L'Arrivage

Telephone			
Email			

Details	Project Partner 9		
Surname	Raberinary		
Forename (s)	Daniel		
Post held	Assistant Professor		
Organisation (if different to above)	University of Tulear IST		
Telephone			
Email			

7. Has your organisation been awarded a Darwin Initiative award before (for the purposes of this question, being a partner does not count)?

No

If so, please provide details of the most recent awards (up to 6 examples).

Reference No	Project Leader	Title
N/A	N/A	N/A

8a. If you answered 'No' to Question 7 please complete Question 8a, b and c.

If you answered 'Yes', please go to Question 9 (and delete the boxes for Q8a, 8b and 8c)

What year was your organisation established/ incorporated/ registered?	Year 2000
What is the legal status of your organisation?	NGO Yes Government No University No Other (explain) N/A
How is your organisation currently funded?	(Max 100 words) SEED Madagascar (SEED) receives restricted grant funding and donations from institutional donors, trusts, foundations corporations and individuals (67.8%); donations from participants on volunteering schemes (10.1%); unrestricted donations from individuals (21.9%) and income from investments (0.2%). Major funders during the last period for which audited accounts are available (year ending 30

	<p>June 2016) include:</p> <p>Big Lottery Fund (£97,568) Addax and Oryx Foundation: (£41,639) Guernsey Overseas Aid Commission (£19,480) Australian Aid: (£20,713) Leopardess Foundation (£19,696) Travers Cox Charitable Foundation (£21,026) Trade Aid UK (£16,300) Rufford Foundation (£10,000) Mercury Phoenix Trust (£10,000) Comic Relief (£8,992)</p>
Have you provided the requested signed audited/independently examined accounts?	Yes

8b. Do not complete if you answered 'Yes' to Question 7.

Provide detail of 3 contracts/awards held by your organisation that demonstrate your credibility as an organisation and provide track record relevant to the project proposed. These contracts/awards should have been held in the last 5 years and be of a similar size to the grant requested in your Darwin application.

1. Title	Project Malio : A community-led approach to eliminating open defecation and facilitating sustained behaviour change in Fort Dauphin, southeast Madagascar
Value	432,508 GBP
Duration	3 years: April 2015 - May 2017
Role of organisation in project	Contracting organisation and Primary implementing body
Brief summary of the aims, objectives and outcomes of the contract/award.	<p>Funded by the Guernsey Overseas Aid & Development Commission and the Big Lottery Fund, the project aimed to eliminate or significantly reduce the harmful practice of open defecation in Fort Dauphin.</p> <p>Malio engaged the town in a high impact and broad scale behaviour change programme, motivating and mobilising the community to eradicate the practice of open defecation and supporting the construction of 800 latrines for the most disadvantaged families, and 14 school latrines for the town's public schools.</p> <p><u>Objective:</u></p> <ul style="list-style-type: none"> To reduce the practice of open defecation through the provision of hygienic sanitation infrastructure and facilitation of sustained behaviour change with regard to latrine use and improved hygiene practices in Fort Dauphin Urban Commune. <p><u>Key Outcomes:</u></p> <ul style="list-style-type: none"> 85% reduction in latrine beneficiary children (799 households) under 5 suffering from chronic diarrhoea 23% reduction in non-beneficiary children (town-wide) never having had diarrhoea

	<ul style="list-style-type: none"> • 11 out of 13 schools achieved <i>Friend of Wash</i> status • 10 community action plans developed and implemented • Communal latrine used by an average of 78 people per day, covering cleaning, operating and maintenance costs
Client/ independent reference contact details (Name, e-mail, address, phone number).	

2. Title	Project Mitsinjo : An integrated approach to livelihoods, health and conservation through agro-forestry, beekeeping and fuel-efficient stove construction in southeast Madagascar
Value	170,927 USD
Duration	2 years: June 2014 - May 2016
Role of organisation in project	Contracting organisation and Primary implementing body
Brief summary of the aims, objectives and outcomes of the contract/award.	<p>Funded by the Addax and Oryx Foundation, the project aimed to improve community health and nutrition, promote livelihood diversification and reduce dependence on finite natural resources in five rural communities in southeast Madagascar.</p> <p>Through a combination of regular skills training, household material distributions, culinary demonstrations and mass mobilisations, the project introduced simple and low-cost income generating activities to households, schools and communities. These included composting, beekeeping, agroforestry, the building of fuel efficient stoves and handwashing.</p> <p><u>Objectives:</u></p> <ul style="list-style-type: none"> • Conserve carbon, reduce emissions and improve respiratory health of 2,000 people through community construction and use of fuel-efficient stoves. • Improve nutritional & hygienic health, increase resilience of livelihoods to climate change and increase household income of people through training in bee keeping, honey production, propagation and use of agro-forestry trees <p><u>Key Outcomes:</u></p> <ul style="list-style-type: none"> • Improved health and nutrition (including 88% of 1,112 moringa beneficiary households) • Reduced time collecting wood (>97% of 312 households) • Apicultural skills improved (>87% of 50 beekeepers)
Client/ independent reference contact details	

3. Title	Safidy 3 : National, regional & local - a network approach to increase access to SRHR resources for students in Madagascar.
Value	267,531 EUR
Duration	2 years: September 2016 - August 2018
Role of organisation in project	Contracting organisation and primary implementing body
Brief summary of the aims, objectives and outcomes of the contract/award.	<p>Funded by Amplify Change, the project builds on previous SEED Madagascar projects which aimed to increase knowledge and safe sex practices amongst young people in Fort Dauphin in the Anosy Region.</p> <p>The project refined educational resources to engender a rights-based approach to sexual and reproductive health, piloting them in the Anosy and Androy Regions to inform their continued development and shape the content.</p> <p>SEED has partnered the Ministry of National Education (MEN) to pilot resources across an additional 15 schools in socio-economically diverse regions of the country. This pilot is further supported by a network of partner organisations, members of a nascent Sexual and Reproductive Health Rights (SRHR) Network, to build capacity in schools and assist in rigorous monitoring and evaluation on the ground. An online network platform will launch in April, providing a space for schools, community-based organisations and non-government organisations to share their knowledge, challenges and experiences enabling SRHR in Madagascar. SEED will leverage learning from this network to support the MEN's strategy to implement comprehensive SRHR education in schools across the country by 2019.</p> <p><u>Objective:</u> To establish a SRHR platform within Madagascar's pre-existing PHE Network, enabling diverse actors across Madagascar to share and access high-quality, government-approved SRHR resource packs, developed through SEED Madagascar led pilots.</p> <p><u>Key Outcomes Achieved to date:</u></p> <ul style="list-style-type: none"> • MoU established with MEN • 953 beneficiaries at end of Project Year 1 • Regional resource pilot: <ul style="list-style-type: none"> - 50 percentage point increase in students agreeing or strongly agreeing with the statement "a person in a sexual relationship should always have the right to say no to sex" - 65 percentage point increase of students knowing how to use a condom from baseline to endline
Client/independent reference contact	

details	
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8c. Do not complete if you answered 'Yes' to Question 7.

Describe briefly the aims, activities and achievements of your organisation. (Large organisations please note that this should describe your unit or department)

Aims (50 words)

SEED builds community and ecosystem resilience, taking a holistic, community-based approach to natural resource management, sustainable development and conservation.

Mission: is to enhance the capacity of individuals, communities, organisations and government in fulfilling sustainable environment, education and development goals in southeast Madagascar.

Vision: resilient communities and ecosystems thriving across Madagascar.

Activities (50 words)

Recognising the complexity and interdependence of challenges facing communities in southeast Madagascar, SEED's integrated programming builds projects around the directly expressed needs of vulnerable communities. Progress towards SEED's mission is maximised by cross-departmental collaboration between its four programmes – Community Health, Sustainable Livelihoods, Environmental Conservation and Education.

Achievements (50 words)

- Developed, advocated and secured government commitment to a national, SRHR curriculum, training 22 partner organisations in delivery
- Established inclusive, community managed livelihood, NRM and Water committees across 35 rural communities
- Implemented WASH and maternal / child health projects reaching >25,000 beneficiaries
- Published and International presented pioneering conservation and development research

9. Please list all the partners involved (including the Lead Institution) and explain their roles and responsibilities in the project. Describe the extent of their involvement at all stages, including project development. This section should illustrate the capacity of partners to be involved in the project. Please provide written evidence of partnerships. Please copy/delete boxes for more or fewer partnerships.

<p>Lead institution and website:</p> <p>http://madagascar.co.uk/</p>	<p>Details (including roles and responsibilities and capacity to lead the project): (max 200 words)</p> <p>SEED Madagascar is a British charity that has operated in southeast Madagascar since 1997. Collaboration between SEED's national and international staff provides the vital expertise and regional knowledge necessary to achieve conservation and development goals. SEED's work is further underpinned by collaborative partnerships with local, national and international stakeholders, ensuring a holistic, regionally appropriate approach that is informed by international best practice.</p> <p>Through Project Oratsimba, SEED supported the Sainte Luce community to implement a successful evidence-based, community-led lobster fishery management model. Benefits recognised by fishers in the neighbouring communities to the north and south (Elodrato and Itapera) encouraged informal attempts at replication and requests for formal support. The proposed project, developed with technical support from Blue Ventures, responds to these requests and builds on needs analyses, fishery monitoring and capacity building in all three communities.</p> <p>SEED will coordinate and be responsible for the delivery of all project activities and outputs, monitoring and evaluation, reporting and financial management. Key activities led by SEED include: 1) facilitating the extension of the model 2) delivering the community education programme 3) building capacity 4) facilitating stakeholder dialogue and negotiation 5) coordinating the participatory monitoring programme 6) disseminating learning.</p>
<p>Have you included a Letter of Support from this institution? If not, why not?</p>	<p>Yes</p>

<p>Partner Name and website where available:</p> <p>University College London - Department of Geography</p> <p>http://www.geog.ucl.ac.uk/</p>	<p>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</p> <p>UCL was the top-rated university for research strength in the UK in the Research Excellence Framework 2014, with 81% of the Geography's department's research ranked 'world-leading' or 'internationally excellent'. The Department supports a diversity of styles and scales of research, concentrating strategically in areas where it can make a distinctive, significant and conceptually innovative contribution.</p> <p>The Department will undertake a critical <i>and</i> constructive analysis at the outset of the project using the Marine Protected Area Governance (MPAG) framework¹. This framework allows empirical analysis of the governance structure, examining the actors and the relationships between them and the incentives utilised. This will directly inform activities by providing insights into the value chain, critical blockages and incentives needed or in need of strengthening.</p> <p>Dr Peter Jones, an internationally recognised authority on environmental governance who developed the MPAG framework, will supervise the analysis. Peter has supervised and published numerous case studies using the MPAG framework, including in Madagascar. His research focuses on how state, market and participatory approaches can combine to achieve conservation objectives and related equity aims, and is ideally suited to the context of Madagascar's south-eastern lobster fishery, having already been applied to the Ankobohobo crab fishery².</p>
<p>Have you included a Letter of Support from this institution? If not, why not?</p>	<p>Yes</p>

¹ Jones, P.J.S. (2014). *Governing Marine Protected Areas: Resilience Through Diversity*. 1st ed. Oxford: Routledge. <http://www.mpag.info/>.

² Long S., Jones P.J.S., Randrianac Z and Hadj-Hammoud J (2017) Governance analysis of a community managed small-scale crab fishery in Madagascar: novel use of an empirical framework. *Marine Policy* [Open Access](#) doi:10.1016/j.marpol.2017.11.022.

<p>Partner Name and website where available:</p> <p>Blue Ventures</p> <p>https://blueventures.org/</p>	<p>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</p> <p>Blue Ventures (BV) is an award-winning international NGO that has successfully supported the establishment of 65 Locally Managed Marine Areas (LMMAs), using the periodic No Take Zones (NTZs) to catalyse support for coastal and marine conservation in Madagascar. BV have delivered and are delivering several Darwin Initiative projects, both as Project Lead and Project Partners.</p> <p>BV has worked collaboratively with SEED over 15 years, supporting SEED to develop its long-term strategic approach to community-based lobster fishery management and have provided assistance in the development of the proposed project.</p> <p>BV is currently collaborating with SEED as a technical and funding partner on a pre-phase project designed to lay the groundwork for the proposed project and expand SEED's participatory fishery monitoring programme in the target communities, thereby maintaining momentum built through the pilot phase.</p> <p>BV will support the proposed project through: Training and technical support on transitioning from paper-based monitoring to digital data collection using ODK; training and technical support in developing dash boarding and visualisation systems to present data to communities, enabling the development evidence-based community-led management measures; supporting SEED's engagement with government and private sector officials in Antananarivo; providing support on M&E design and implementation.</p>
<p>Have you included a Letter of Support from this institution? If not, why not?</p>	<p>Yes</p>

<p>Partner Name and website where available:</p> <p>MIHARI</p> <p>https://mihari-network.org/</p>	<p>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</p> <p>MIHARI is Madagascar's network of Locally Managed Marine Areas. It was established in 2012 by 18 leading representatives from the country's LMMAs. It aims to bring together all coastal communities involved with marine resource management and the organisations that work with them.</p> <p>The MIHARI network includes over 100 individual LMMAs and 20 marine resource and conservation NGOs. MIHARI operates regional and national forums for its members to share learning and experiences and facilitates learning networks to enhance LMMA management. In 2019, MIHARI will collaborate with SEED by coordinating the first annual lobster LMMA specific forum in Madagascar. This will bring together lobster fishing communities, state, government and NGO stakeholders from throughout the regional fishery to share learnings, establish lines of communication and collaborate on common challenges.</p> <p>In collaboration with the SEED, MIHARI will support the project through: The sharing of job advertisements; dissemination of scientific research and project learnings, contributing to the further establishment of LMMAs; hosting SEED project staff and fishers at national and regional forums annually; collaboration with SEED to organise the first lobster LMMA forum in southeast Madagascar.</p>
<p>Have you included a Letter of Support from this institution? If not, why not?</p>	<p>Yes</p>

<p>Partner Name and website where available:</p> <p>Directorate of Marine Resources and Fisheries (DRRHP)</p>	<p>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</p> <p>The Regional Director of Marine Resources and Fisheries (DRRHP) is the Malagasy Government's representative for fisheries in Anosy. DRRHP outsources all of its research activities to l'Unité de Recherche Langoustière (URL) Anosy.</p> <p>Through Project Oratsimba, SEED maintained close relationships with the DRRHP. In this proposed project, as with Oratsimba, DRRHP will collaborate with SEED with regards to: The development of management measures and the strategy for their regional enforcement; ratification of <i>dina</i> into national law; supporting the establishment of an association of registered fishers in the target communities.</p> <p>To build cross-sector capacity in developing <i>dina</i> enforcement strategies, good governance, data management systems, improved external communications and knowledge building, DRRHP representatives will attend quarterly capacity building workshops facilitated by SEED. DRRHP representatives will also attend all MIHARI organised forums within the project's duration.</p>
<p>Have you included a Letter of Support from this institution? If not, why not?</p> <p>SEED has a strong relationship with both DRRHP and URL established through partnership and collaboration during the pilot project, Project Oratsimba. SEED approached the Regional Director of Fisheries and the Executive Director of URL to request letters of support. While both are fully supportive of the project, SEED has received word that there has been a change in policy that requires all letters of support are authorised by the central Ministry in Antananarivo. This was unexpected as SEED was able to secure letters of support directly from the Directors of DRRHP and URL for its previous application in 2016. SEED is currently attempting to secure authorisation and will update the Darwin Expert Committee with any developments in this process.</p>	<p>No</p>

<p>Partner Name and website where available:</p> <p>l'Unité Recherche Langoustière (URL)</p>	<p>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</p> <p>l'Unité de Recherche Langoustière (URL) Anosy is the region's Lobster Research Unit. URL are funded by and report to DRRHP on all of their activities and operations.</p> <p>SEED and URL collaborated closely during the pilot-phase of Project Oratsimba in order to identify the state of the lobster fishery in Sainte Luce.</p> <p>During the course of the proposed project, SEED and URL will share and develop: Skills and knowledge; research data and methodologies; equipment and scientific research materials. SEED will work with URL to ensure they have the capacity to share their research with fishing communities throughout the regional fishery.</p> <p>URL representatives will attend quarterly skill sharing workshops and 3 research dissemination visits to target communities. URL representatives will also attend all MIHARI organised forums within the project's duration.</p>
<p>Have you included a Letter of Support from this institution? If not, why not?</p> <p>Please see section on DRRHP (above)</p>	<p>No</p>

<p>Partner Name and website where available:</p> <p>Madapeché</p>	<p>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</p> <p>Madapeché is the Anosy region's largest exporter of lobster. Their leading role in the value chain of spiny lobster makes the business a crucial private sector partner. The sustainability of the lobster fisheries in Sainte Luce, Elodrato and Itapera, and throughout the regional fishery is critical to Madapaché's operations.</p> <p>SEED and Madapeché will collaborate within the project through regular communication. To enhance the value chain of lobster in order to favour fisher compliance to management measures, Madapeché representatives will attend two annual stakeholder meetings and nine fishery site visits facilitated by SEED.</p> <p>In addition, to support effective fisheries management enforcement, Madapeché representatives will attend quarterly workshops alongside other private sector stakeholders and <i>collecteurs</i> (buyers at the second point of sale). Madapeché representatives will also attend all MIHARI organised lobster specific forums within the project's duration.</p>
<p>Have you included a Letter of Support from this institution? If not, why not?</p>	<p>Yes</p>

<p>Partner Name and website where available:</p> <p>Le Martin Pecheur</p> <p>https://martinpecheur.com/origine/madagascar/</p>	<p>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</p> <p>Le Martin Pecheur is the Anosy region's second largest exporter of lobster. As with Madapeché, their key role in the value chain of spiny lobster makes them a crucial private sector partner. They too have a critical interest in the sustainability of the Sainte Luce, Elodrato and Itapera lobster fisheries and have expressed interest in making their own practises more complimentary to the project's aims.</p> <p>Martin Pecheur and SEED will collaborate throughout the project's duration through the enhancement of the value chain of lobster in order to favour fisher compliance to management measures.</p> <p>Representatives from Martin Pecheur will attend 2 annual stakeholder meetings and 9 fishery site visits facilitated by SEED. In addition, to support effective fisheries management enforcement, Martin Pecheur representatives will attend quarterly workshops alongside other private sector stakeholders and <i>collecteurs</i>. Martin Pecheur representatives will also attend all MIHARI organised lobster specific forums within the project's duration.</p>
<p>Have you included a Letter of Support from this institution? If not, why not?</p>	<p>Yes</p>

<p>Partner Name and website where available:</p> <p>L'Arrivage</p>	<p>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</p> <p>L'Arrivage is an esteemed seafood restaurant in Antananarivo and supplier of seafood to restaurants throughout the capital. The company operates a small logistics business in Fort Dauphin.</p> <p>Through the course of the proposed project L'Arrivage will collaborate with SEED to explore potential avenues for domestic routes to market, offer fishers higher prices at point of sale for lobster and assist in exploring potential for Fisher Associations to achieve eco-label certification for their product.</p> <p>Representatives from L'Arrivage will attend two annual stakeholder meetings and nine fishery site visits facilitated by SEED. L'Arrivage representatives will also attend quarterly workshops alongside other private sector stakeholders and <i>collecteurs</i>. L'Arrivage representatives will also attend all MIHARI organised lobster specific forums within the project's duration.</p>
<p>Have you included a Letter of Support from this institution? If not, why not?</p>	<p>Yes</p>

<p>Partner Name and website where available:</p> <p>University of Tulear (UoT)</p> <p>http://www.univ-toliara.mg/</p>	<p>Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)</p> <p>The University of Tulear, founded in 1971, is Madagascar's oldest higher education institute. It's Fort Dauphin annex, the Institute of Agriculture and Hydrology (IST) explores innovation in the areas of agriculture, civic engagement and sustainable development. The IST works closely with the University's Halieutic and Marine Science Institute (IH.SM).</p> <p>Together, the IST and IH.SM have trained more than 100 oceanography technicians and PHD researchers; >50 underwater tour-guides; >200 managers in marine ecotourism; >37 Marine Protected Area managers. The institutions have awarded >150 Bachelor degrees, 165 Diplomas of Advanced Studies in Applied Oceanology and >35PhDs.</p> <p>During the proposed project's pre-phase, SEED hosted one student from IST and offered support in research methodology and data analysis. During the proposed project SEED will host a further two students, offering the same support.</p> <p>SEED and IST will also collaborate to ensure that all scientific data and findings are shared and disseminated to target communities, project partners, stakeholders and the academic community.</p>
<p>Have you included a Letter of Support from this institution? If not, why not?</p>	<p>Yes</p>

10. Key Project personnel

Please identify the key project personnel on this project, their role and what % of their time they will be working on the project. Please provide 1 page CVs for these staff, or a 1 page job description or Terms of Reference for roles yet to be filled. Please include more rows where necessary. These should match the names and roles in the budget spreadsheet.

Name (First name, surname)	Role	Organisation	% time on project	1 page CV or job description attached*?
Lisa Bass	Project Leader	SEED Madagascar	10%	Yes
James Antilahy	Project Coordinator	SEED Madagascar	100%	Yes
Victoria Foord	Head of Project Development	SEED Madagascar	50%	Yes
Sylvestre Mbola	Rurla Livelihoods Coordinator	SEED Madagascar	50%	Yes
Joel Rajaobelina	Head of Finance (Madagascar)	SEED Madagascar	15%	Yes
Mark Jacobs	Managing Director	SEED Madagascar	5%	Yes
Nicholas Lynch-Staunton	Project Development Coordinator	SEED Madagascar	10%	Yes
Tsina Endor	Head of External Communications, and Compliance	SEED Madagascar	10%	Yes
To be recruited	Education Specialist	SEED Madagascar	100%	Yes (JD)
To be recruited	MEL Specialist	SEED Madagascar	100%	Yes (JD)
To be recruited	Project Development Officer	SEED Madagascar	100%	Yes (JD)
To be recruited	Head of Environment	SEED Madagascar	50%	Yes (JD)
Stephen Long	Fisheries Consultant	Independent	5%	Yes
Peter Jones	MPAG Principle Investigator	UCL – Department of Geography	12.5%	Yes
To be Recruited	MPAG Researcher	UCL – Department of Geography	100%	Yes (JD)
Individual not yet allocated	MIHARI Forum Coordinator	MIHARI	10%	Yes
Alasdair Harris	Executive Director	Blue Ventures	2%	Yes
Manitra Arimalala	Policy and Partnership Support Officer	Blue Ventures	2%	Yes
Charlie Gough	Head of Monitoring and Evaluation	Blue Ventures	2%	Yes
Hannah Gilchrist	Monitoring Evaluation and Learning Officer - Partnership Support	Blue Ventures	5%	Yes
Adrian Levrel	National Fisheries Programme Lead	Blue Ventures	2%	Yes

Daniel Raberinary	NTZ Specialist Technical Support	University Tulear	of	19%	Yes
*If you cannot provide a CV, please explain why not.					

11. Problem the project is trying to address

Please describe the problem your project is trying to address in terms of biodiversity and its relationship with poverty. For example, what are the drivers of loss of biodiversity that the project will attempt to address? Why are they relevant, for whom? How did you identify these problems?

(Max 300 words)

Madagascar's south eastern regional lobster fishery, consists of ~40 impoverished artisanal fishing communities³, and accounts for the majority of national catch and export, directly employing 15,000 people. Lobsters are a high value commodity, meaning the fishery's socio-economic value is significant in impoverished rural households⁴.

Available data and local fisher knowledge suggest there have been significant declines in lobster stock over recent decades,⁵ driven by rapid population growth and export market demand leading to increased fishing effort.

Typical of Madagascar⁶, rapid population growth, extreme poverty and limited state capacity undermine the environmental governance capacity. National legislation is poorly enforced and compliance is weak. Continued overexploitation, the likely cause for declines in catch⁷, threatens livelihoods, food security and biodiversity.

Lobsters are a keystone species in rocky reef ecosystems, as mid-trophic consumers they play a significant role in food-webs and account for a significant proportion of consumer biomass⁸. Numerous examples show fishery induced population decreases have cascading ecological effects, including on reef ecosystems⁹. Further stock depletion or collapse therefore threatens biodiversity, ecosystem functioning and ecosystem service provision.

By providing an economic lifeline to impoverished coastal communities with few alternative livelihoods, the fishery protects marine and terrestrial biodiversity. Endangered turtles and elasmobranchs are caught in the wider fishery. However most fishing effort is currently targeted at lobsters. Further depletion of stocks would result in increased targeting of endangered species for which there are existing markets. The target communities are closely tied to remaining southern littoral forests. Madagascar's most threatened ecosystem¹⁰, these forests

³ Long, S. (2017). Short-term impacts and value of a periodic no take zone (NTZ) in a community-managed small-scale lobster fishery, Madagascar. *PLoS ONE* 12(5): e0177858. <https://doi.org/10.1371/journal.pone.0177858>

⁴ Tecklenberg, H. (2016). 'Lobster Fishing Households' Response to a Periodic Marine No-Take Zone Through a Gendered Lens'. Masters. University of Sussex.

⁵ Long, S. (2017). Short-term impacts and value of a periodic no take zone (NTZ) in a community-managed small-scale lobster fishery, Madagascar. *PLoS ONE* 12(5): e0177858. <https://doi.org/10.1371/journal.pone.0177858>

⁶ Holloway, G. and Short, S. (2014). Towards a more adaptive co-management of natural resources – increasing social-ecological resilience in southeast Madagascar. *Madagascar Conservation & Development* 9(1), pp. 36-48. <http://dx.doi.org/10.4314/mcd.v9i1.7>.

⁷ Long, S. (2017). Short-term impacts and value of a periodic no take zone (NTZ) in a community-managed small-scale lobster fishery, Madagascar. *PLoS ONE* 12(5): e0177858. <https://doi.org/10.1371/journal.pone.0177858>.

⁸ Phillips, B.F., Wahle, R.A., and Ward, T.J. (2013) Lobster as part of marine ecosystems – a review. In: *Lobsters: Biology, Management, Aquaculture, and Fisheries*. Ed: Phillips, B.F. Wiley-Blackwell. pp.1-35.

⁹ Pinnegar, J.K., et al, (2000) Trophic cascades in benthic marine ecosystems: lessons for fisheries and protected-area management. *Environmental Conservation*, 27(2), pp.179-200.

¹⁰ QIT Madagascar Minerals S.A. (QMM) (2001). Projet Ilménite: Etude d'impact social et environmental. Unpublished Report. QMM, Antananarivo, Madagascar

exhibit exceptional levels of biodiversity¹¹ and are home to numerous endangered macro- and micro-endemic species^{12,13,14,15,16}. Further stock depletions would dramatically increase pressure on the forest habitat through increased charcoal manufacture - a typical coping strategy of last resort¹⁷.

12a. Biodiversity Conventions, Treaties and Agreements

Your project must support the objectives of one or more of the agreements listed below. Please indicate which agreement(s) will be supported and describe which objectives your project will address and how. Note: projects supporting more than one will not achieve a higher score.

Convention On Biological Diversity (CBD)	Yes
Nagoya Protocol on Access and Benefit Sharing (ABS)	No
International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)	No
Convention on International Trade in Endangered Species (CITES)	No

12b. Biodiversity Conventions

Please detail how your project will contribute to the objectives of the agreement(s) your project is targeting. You should refer to Articles or Programmes of Work here. Note: No additional significance will be ascribed for projects that report contributions to more than one agreement

(Max 500 words)

The project supports three communities to implement measures to sustainably manage depleted lobster stocks, contributing to [Aichi Target 6](#) and [CBD Article 10\(d\)](#). A LMMA model, piloted in Sainte Luce will be extended to two communities, Elodrato and Itapera. This will increase the marine area conserved through effective, area-based conservation measures by ≈320km², contributing to [Aichi Target 11](#) and [CBD Article 8\(a\)](#).

Management measures will safeguard provisioning services of the fishery, which plays a major role in coastal livelihoods. During the pilot, the project's key management tool - a periodic No Take Zone (NTZ) - resulted in increased prices paid to fishers and increases in CPUE¹⁸, with economic benefits felt at the household level including reports of improvements to women's diets during opening periods. Replicating these effects will safeguard ecosystem service provision and alleviate poverty, contributing to [Aichi Target 14](#) and Article 8 of the Elaborated Programme of Work on Marine and Coastal Biological Diversity ([Decision VII/5](#)). By using the economic and social benefits of the NTZ to incentivise sustainable practices, it fulfils [CBD Article 11](#). Such incentives were used effectively during the pilot, and catalysed the engagement of Itapera and Elodrato, demonstrating the replicability.

¹¹ Rabevohitra, R., Lowry II, P.P., Schatz, G.E., Randrianjafy, H. and Razafindrianalana, N., 1996. Assessment of plant diversity and conservation importance of east coast low elevation Malagasy rain forest. Rapport sur la projet: Centre National de la Recherche appliquée au développement rural, Madagascar. Département de recherches forestières et piscicoles, Madagascar. Biodiversity support program. Missouri Botanical Garden, St Louis

¹² Jenkins, R., Randrianantoandro, C. and Ramanamanjato, J.B. (2011). *Phelsuma antanosy*. The IUCN Red List of Threatened Species 2011: e.T63658A12704038. <http://dx.doi.org/10.2305/IUCN.UK.2011-2.RLTS.T63658A12704038.en>.

¹³ Raxworthy, C.J., Ratsoaivina, F., Rabibisoa, N., Rakotondrazafy, N.A., Bora, P. and Jenkins, R.J. (2013). *Matoatoa spanringi*. The IUCN Red List of Threatened Species 2013: e.T172848A47951550. <http://dx.doi.org/10.2305/IUCN.UK.2013-2.RLTS.T172848A47951550.en>.

¹⁴ Rakotoarinivo, M. and Dransfield, J. (2012). *Dypsis saintelucei*. The IUCN Red List of Threatened Species 2012: e.T38562A2879456. <http://dx.doi.org/10.2305/IUCN.UK.2012.RLTS.T38562A2879456.en>.

¹⁵ Wesener, T. and Rudolf, E. (2017). *Sphaeromimus saintelucei*. The IUCN Red List of Threatened Species 2017: e.T65527213A65527785. <http://dx.doi.org/10.2305/IUCN.UK.2017-1.RLTS.T65527213A65527785.en>.

¹⁶ Rudolf, E. and Wesener, T. (2017). *Riotintobolus minutus*. The IUCN Red List of Threatened Species 2017: e.T80580936A80580952. <http://dx.doi.org/10.2305/IUCN.UK.2017-1.RLTS.T80580936A80580952.en>.

¹⁷ Gardner, C., Gabriel, F., St. John, F., & Davies, Z. (2016). Changing livelihoods and protected area management: A case study of charcoal production in south-west Madagascar. *Oryx*, 50(3), 495-505. doi:10.1017/S0030605315000071

¹⁸ Long, S. (2017) Short-term impacts and value of a periodic no take zone (NTZ) in a community-managed small-scale lobster fishery, Madagascar. *PLoS ONE* 12(5): e0177858. <https://doi.org/10.1371/journal.pone.0177858>

Through a participative approach, community-elected fishery managers will be supported to develop and implement their own management measures. This ensures local knowledge, innovations and practices are respected and fully integrated, contributing to [Aichi Target 18](#) and [CBD Article 8\(j\)](#).

Lobsters in the regional fishery are an important resource for the conservation of biodiversity due to their economic value and role as keystone species¹⁹. Fishery collapse would result in increased pressure on endangered marine megafauna and terrestrial resources, specifically threatened littoral forests that exhibit exceptional biodiversity and endemism²⁰. Managing this resource therefore fulfils [CBD Article 8\(c\)](#).

Links will be fostered between target communities through cross-visits and meetings, and with Madagascar's national LMMA network (MIHARI). By ensuring LMMAs are well connected, the project further contributes to [Aichi Target 11](#).

Improved cooperation between communities, the state and the private sector will be facilitated through stakeholder meetings, establishing communication processes, fulfilling [CBD Article 10\(e\)](#) and Article 6 of the Elaborated Programme ([Decision VII/5](#)).

To increase compliance with national law, the project will build the enforcement capacity of community-based management and state actors, whilst working with the private sector to reduce demand for illegal catch, contributing to [Aichi Target 6](#).

The project fulfils Article 7 of the Elaborated Programme ([Decision VII/5](#)) by establishing a fisher association to protect against incoming users.

A participatory programme monitoring landings, catch composition and CPUE, will improve knowledge on the effects of management measures on biodiversity. Results will be shared with state, private sector and NGO actors, and published in an open access journal. Data and analyses will be periodically shared with stakeholders to support evidence-based decision making. Data will be added to existing open access participatory monitoring database²¹. This will ensure knowledge and science base is improved, widely shared *and* applied, contributing to [Aichi Target 19](#).

12c. Is any liaison proposed with the CBD / ABS / ITPGRFA / CITES focal point in the host country?

Yes No if yes, please give details:

12d. Global Goals for Sustainable Development (SDGs)

Please detail how your project will contribute to the Global Goals for Sustainable Development (SDGs).

(Max 250 words)

The project directly addresses [SDG 14](#) (conserve and sustainably use the oceans, seas and

¹⁹ Phillips, B.F., Wahle, R.A., and Ward, T.J. (2013) Lobster as part of marine ecosystems – a review. In: *Lobsters: Biology, Management, Aquaculture, and Fisheries*. Ed: Phillips, B.F. Wiley-Blackwell. pp.1-35.

²⁰ Rabevohitra, R., Lowry, P.P., Randrianjafy, H. and Razafindrianilana, N. (1996). *Rapport sur le projet 'Assesment of Plant Diversity and Conservation Importance of East Coast Low Elevation Malagasy Rain Forests'*. Centre National de la recherche appliquée au développement rural CENRADERU-FOFIFA. Missouri Botanical Garden, USA.

²¹ Long, S. (2017). Data from: Short-term impacts and value of a periodic no take zone (NTZ) in a community-managed small-scale lobster fishery, Madagascar. Dryad Digital Repository. <https://doi.org/10.5061/dryad.i0n62>

marine resources for sustainable development). By scaling up an established Locally Managed Marine Area model, local communities will be empowered to manage their marine resources, supported by the state and industry ([SDG 14.2](#)). The No Take Zone model has been shown to increase prices at the bottom of the value chain²² ([SDG 14.b](#)). Equitable distribution of financial benefits will make it economically feasible for fishers to adopt sustainable behaviours, ensuring marine resource management contributes to development ([SDG 14.7](#)).

As women are key actors in the value chain and project beneficiaries at household level, their contribution to decision making will be actively sought ([SDG 5.5](#)). Combining participatory fisheries monitoring data and incorporating Madagascar's parastatal lobster research unit (URL) within the governance framework will enable evidence-based management of stock ([SDG 14.4](#)). Provision of equipment and training will build the knowledge and research capacity of URL, improving Madagascar's ability to manage sustainable production ([SDG 14.a](#), [SDG 12.2](#)).

Impacts on the value chain, such as the increases in price fishers receive will address [SDG 1](#), critical in the poorest region of a country where 77.8% live in extreme poverty²³. Similarly, over 50% of children under five suffer from chronic malnutrition²⁴. Fisheries are key source of protein, and improved incomes associated with NTZ openings have been reported to improve women's diets in fisher households ([SDG 2.1](#), [2.2](#) and [2.4](#)).

13. Methodology

Describe the methods and approach you will use to achieve your intended Outcome and Impact. Provide information on how you will undertake the work (materials and methods) and how you will manage the work (roles and responsibilities, project management tools etc.).

(Max 500 words – this may be a repeat from Stage 1, but you may update or refine as necessary. Tracked changes are **not** required.)

Fishery Governance Analysis:

UCL will undertake a critical *and* constructive analysis of the existing governance at the outset of the project using the Marine Protected Area Governance framework²⁵. Insights, including into the value chain, drivers, critical blockages and incentives needed or in need of strengthening, will directly focus and target interventions to refine the model.

Refine and scale up model:

A community-based fishery management model piloted in Sainte Luce will be refined and extended to two neighbouring communities, Elodrato and Itapera. SEED will facilitate the establishment of community-elected management committees, support them to develop and strengthen evidence-based management measures, including a periodic No Take Zone (NTZ), and incorporate them into *dina* (local customary law). The refined model will include community-elected fisher bodies, distinct from management committees, responsible for patrols and reporting regulatory infractions, and a registered fishers association to reinforce access rights and protect against incoming users.

SEED will support state bodies (DRRHP and Gendarmerie) to enforce management measures by establishing infraction reporting procedures, providing communications equipment, facilitating meetings and supporting state ratification of *dina*. Buyers and exporters will receive training on management measures to encourage compliance.

²² Long, S. (2017). Short-term impacts and value of a periodic no take zone (NTZ) in a community-managed small-scale lobster fishery, Madagascar. *PLoS ONE* 12(5): e0177858. <https://doi.org/10.1371/journal.pone.0177858>

²³UNDP (United Nations Development Programme). (2016). *Human Development Report 2016: Human Development for Everyone*. http://hdr.undp.org/sites/default/files/2016_human_development_report.pdf.

²⁴ World Bank. (2015). Madagascar - Systematic country diagnostic. Washington, D.C.: World Bank Group.

²⁵ Jones, P., (2014), *Governing Marine Protected Areas: Resilience through diversity*. Routledge: Oxford.

Extensive capacity building, cross-visits, youth education, media distribution and mass mobilisations will catalyse broad-based support the LMMA model and set conditions for the establishment of permanent reserves and wider community-based conservation.

Value chain development:

In conjunction with NTZ openings, open dialogue amongst fishers, state and industry was instrumental in increasing the price paid to fishers during Oratsimba²⁶. To build on and replicate this success, SEED will facilitate stakeholder meetings, empowering fishers to negotiate equitable prices.

SEED will deliver sustainable fishery management training to buyers, focusing on its long-term benefits.

Training on financial management skills at the household level will focus on increased earnings from NTZ openings.

Fishery monitoring:

SEED will collaborate with URL and management committees to ensure participatory monitoring data are used to inform evidence-based management. By continuing the monitoring programme, a six-year dataset will be available by project close, enabling rare insights into community-based small-scale fishery management.

Regional replication:

Financial benefits of the NTZ model have community catalyst effects, engaging new communities in locally-led management. SEED will exploit this to facilitate viral replication through an outreach programme, including a MIHARI-led lobster fishery forum, directed at non-target communities from throughout the regional fishery.

Project Management:

The Project Leader will head regularly meetings to review the Theory of Change and lead strategy reviews quarterly with input from Blue Ventures. Staff meetings will track and inform activity planning according to a Gantt chart and M&E Framework. Project staff will project milestone achievement on SEED's online red-amber-green tracking system weekly, alerting senior management to emerging challenges.

Fishery Governance Analysis: UCL Research Assistant and Primary Investigator

Fisher body refinement and establishment: Rural Livelihoods Coordinator

Dina Ratification: Head of External Communications

Training: Project Coordinator (PC)

Fishery Monitoring: PC and Fisheries Consultant

Community Engagement: Education Specialist

Value Chain Development: PC

Monitoring and Evaluation: MEL Specialist, support from BV

Outreach Programme: PC and MIHARI

14. Change Expected

Detail the expected changes this work will deliver. You should identify what will change and who will benefit a) in the short-term (i.e. during the life of the project) and b) in the long-term (after the project has ended). Please describe the changes for biodiversity and for people in developing countries, and how they are linked. When talking about people, please remember

²⁶ Indian Ocean Commission, SmartFish Programme. (2016). *Management of the Lobster Fishery in Madagascar*. http://commissionoceanindien.org/fileadmin/projets/smartfish/Fiche/FICHE_26-ENG.pdf.

to give details of who will benefit and the number of beneficiaries expected. The number of communities is insufficient detail – number of households should be the largest unit used. If possible, indicate the number of women who will be impacted.

(Max 500 words)

The project will result in evidence-based, community-led, marine management operating across three adjacent communities along 30 km of Anosy's coast, with a combined locally managed marine area of ~480 km² used by 850 participating fishers, benefiting a broader population of 4,250 through improved fisheries sustainability and increased household income.

Poverty Reduction:

Based on our published research²⁷, the periodic NTZ model will deliver increases in catch yields following closures of approximately one third. The boost in fisher incomes will be further increased by higher unit prices from buyers following closures, in turn demonstrating a new model for rewarding fisheries sustainability through the supply chain.

Financial literacy training for men and women will strengthen the economic resilience of communities at the household level, encouraging investment in context appropriate assets including boats and *zebu* (cattle of socio-economic and cultural importance).

Management Measures and Compliance:

Improved income following locally led fisheries closures will create a powerful economic incentive for adherence to LMMA management measures, including compliance with gear restrictions, and returning undersized and berried lobsters. Compliance will be strengthened through awareness raising and building the enforcement capacity of community management bodies and state partners. Unifying the efforts of community, state and industry by establishing communication and reporting procedures, and providing training will reduce demand for illegal catch. Effective, resilient and equitable governance will be achieved by ensuring dialogue between actors, as well as sustained local outreach and awareness raising^{28,29}, including through feedback of the results of participatory fisheries monitoring to communicate closure impacts.

Biodiversity Benefits:

Increasing the sustainability of fishing practices, through periodic fisheries closures, gear restrictions, return of undersized and berried lobsters, will result in multiple biodiversity benefits due to the ecologically important role of lobsters as keystone species³⁰, as well as broader ecosystem benefits flowing from improved fishing practices. As has been seen with closures of other small-scale fisheries elsewhere in Madagascar, the economic benefits from the closures will create powerful economic incentives for longer term local management, including the establishment of areas for permanent marine protection. The project will undertake consultations for southeast Madagascar's first permanent marine reserve, protecting the cold water lagoonal hard coral habitats of Sainte Luce. In the long-term this will deliver substantial marine biodiversity benefits, creating the region's first locally-managed marine refuge, helping safeguard the resilience of this critically important marine ecosystem. Enhanced fisheries sustainability will confer broader benefits to terrestrial ecosystem; by securing coastal

²⁷ Long, S. (2017) Short-term impacts and value of a periodic no take zone (NTZ) in a community-managed small-scale lobster fishery, Madagascar. *PLoS ONE* 12(5): e0177858. <https://doi.org/10.1371/journal.pone.0177858>

²⁸ Jones, P.J.S. (2014). *Governing Marine Protected Areas: Resilience Through Diversity*. 1st ed. Oxford: Routledge.

²⁹ Jones P.J.S., Qiu W. and De Santo E.M (2013) Governing Marine Protected Areas: social-ecological resilience through institutional diversity. *Marine Policy* 41, 5-13. doi:10.1016/j.marpol.2012.12.026

³⁰ Phillips, B.F., Wahle, R.A., and Ward, T.J. (2013) Lobster as part of marine ecosystems – a review. In: *Lobsters: Biology, Management, Aquaculture, and Fisheries*. Ed: Phillips, B.F. Wiley-Blackwell. pp.1-35.

livelihoods, the project will mitigate the threats posed by subsistence livelihood activities to adjacent littoral forests, that exhibit exceptional levels of biodiversity and endemism³¹.

Regional Replication:

The proven catalytic effects of the LMMA model will be fully exploited to encourage replication and engagement with fishery management across the regional fishery. Regional replication will be fostered by 1) increasing the enforcement capacity of DRRHP 2) disseminating findings of participatory fisheries monitoring to communities to promote locally led adaptive management 3) reducing demand for illegal and unsustainable fisheries.

15. Gender

All applicants must consider whether and how their project will contribute to reducing inequality between persons of different gender. Explain how your project will collect gender disaggregated data and what impact your project will have in promoting gender equality.

(Max 300 words)

In the target communities, lobster fishing is exclusively carried out by men. Deeply entrenched socio-cultural traditions in community structures and decision-making systems undermine women's engagement with natural resource management. Aside from ethical concerns, failure to include women weakens decision making³², reduces community ownership³³ and undermines compliance with management measures³⁴. The project will therefore adopt recommendations drawn from the Velondriake LMMA in southwest Madagascar³⁵ and use SEED's experience of promoting gender equality and equity locally to mitigate against these factors in a culturally sensitive, contextually appropriate manner.

The project will maximise women's representation in community-based management bodies by conducting gender equality workshops, holding community meetings at times of day that are accessible to women as well as fishers, and ensuring all community education activities are targeted at both men and women. Community meetings exclusively for women will enable women's voices to be heard and presented at community-wide meetings.

The opening of the NTZ in the project pilot saw multiple benefits to women in fisher households; directly through increased household income and indirectly through increased demand for goods sold by women³⁶. Women reported diversifying their livelihood activities, selling goods more frequently and at higher prices, and reducing their effort conducting strenuous activities including strenuous livelihood activities. Furthermore, women reported increased household spending on nutritious foods, household assets and *zebu* - which is used as an informal banking system. The project will seek to maximise equitable household expenditure and investment in productive assets by conducting financial management training with both women and men.

Women's engagement, representation and satisfaction with project activities will be tracked regularly, enabling SEED to adapt or modify project activities to reduce inequality and maximise equitable benefit sharing. All relevant indicators will be disaggregated by gender.

³¹ Rabevohitra, R., Lowry, P.P., Randrianjafy, H. and Razafindrianilana, N. (1996). *Rapport sur le projet 'Assesment of Plant Diversity and Conservation Importance of East Coast Low Elevation Malagasy Rain Forests'*. Centre National de la recherche appliquée au développement rural CENRADERU-FOFIFA. Missouri Botanical Garden, USA.

³² Agarwal, B. (2000) Conceptualising environmental collective action: why gender matters. *Cambridge Journal of Economics* **24**: 283-310.

³³ Westerman, K., & Benbow, S. (2013). The role of women in community-based small-scale fisheries management: The case of the south west Madagascar octopus fishery. *Western Indian Ocean Journal of Marine Science*, *12*, 119–132.

³⁴ Ibid.

³⁵ Ibid.

³⁶ Tecklenberg, H. (2016). 'Lobster Fishing Households' Response to a Periodic Marine No-Take Zone Through a Gendered Lens'. Masters. University of Sussex.
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16. Exit strategy

State whether or not the project will reach a stable and sustainable end point. If the project is not discrete, but is part of a progressive approach, give details of the exit strategy and show how relevant activities will be continued to secure the benefits from the project. Where individuals receive advanced training, for example, what will happen should that individual leave?

(Max 200 words)

By improving the regional governance framework the project will move towards establishing a self-sustaining model, reducing and ultimately eliminating, reliance on external funding. Maximising sustainability in preparation for exit has been considered and will be implemented by:

Building the Institutional framework: Institutional knowledge built through joint training, MEL and information sharing across DRHHP and URL ensuring ongoing government buy-in and community support.

Local management structures: Building community management structures linked to local stakeholders and national networks, ensuring ownership and access to support structures.

Wider community support: Ensuring appropriate information sharing technics, radio, school clubs, community meetings will ensure widespread understanding and support, and low levels continued through SEED.

Private sector buy-in: Inclusion from buyers at first point of sale to international exporters will mean a single, consistent approach across all actors is embedded by project end.

Enforcement: Strengthened through an integrated enforcement matrix that includes ratification in local and national law, with buy-in from elected village officials and supported by the state.

Research: Rigorous National and international research will ensure sound analysis on which implementation decisions are based, and be used to advocate for emerging concerns in a wider NRM context.

Financial mechanism: Economic benefits will incentivise sustainability and replication.

17a. Harmonisation

Is this a new initiative or a development of existing work (funded through any source)? Please give details

(Max 200 words)

The proposed project builds on two phases of Project Oratsimba, funded by [FAO-SmartFish](#) and implemented between June 2013 and July 2016. Referred to in the current application as `the pilot`, the project aimed to develop a replicable, community-based lobster fishery management model in Sainte Luce.

While SEED ended direct support to fishery managers at the end of the project in July 2016, it continued its participatory monitoring programme and maintains a strong relationship with the community-based management body and the wider community. The management body continues to meet and their key management measure, a periodic No Take Zone, is still

operational and widely complied with.

Seeing the economic benefits of the NTZ in Sainte Luce, fishers in Elodrato and Itapera have attempted to replicate the model and have requested formal support from SEED. In response, with [Blue Ventures](#) as technical and funding partners, SEED initiated a limited project designed to lay important groundwork in preparation of expansion of the Sainte Luce model. Running between July 2017 and August 2018, the project includes the expansion of the participatory fishery monitoring programme to both communities beginning in April 2018 in line with the start of the fishing season.

17b. Are you aware of any other individuals/organisations/projects carrying out or applying for funding for similar work? Yes

If yes, please give details explaining similarities and differences. Explain how your work will be additional to this work and what attempts have been/will be made to co-operate with and learn lessons from such work for mutual benefits.

Over the last fifteen years there has been a proliferation of marine and coastal conservation across Madagascar. Triggered by the establishment of the Velondriake LMMA in south west Madagascar, Marine Protected Area coverage increased fifty-fold between 2002 and 2010, and LMMAs cover 11% of the country's seas.

With support from WCS and Blue Ventures, the Velondriake LMMA implemented periodic octopus NTZs which in turn catalysed engagement in wider marine and terrestrial management activities. The LMMA now includes at least six permanent marine reserves, operates periodic mangrove closures, and is established as an IUCN category V Marine Protected Area^{37,38}.

The proliferation in LMMAs has been complimented by the establishment of MIHARI Network in 2012 - a national LMMA network. MIHARI brings together LMMA managers and their supporting NGOs at regional and national forums, enabling them to explore common issues and develop collaborative solutions.

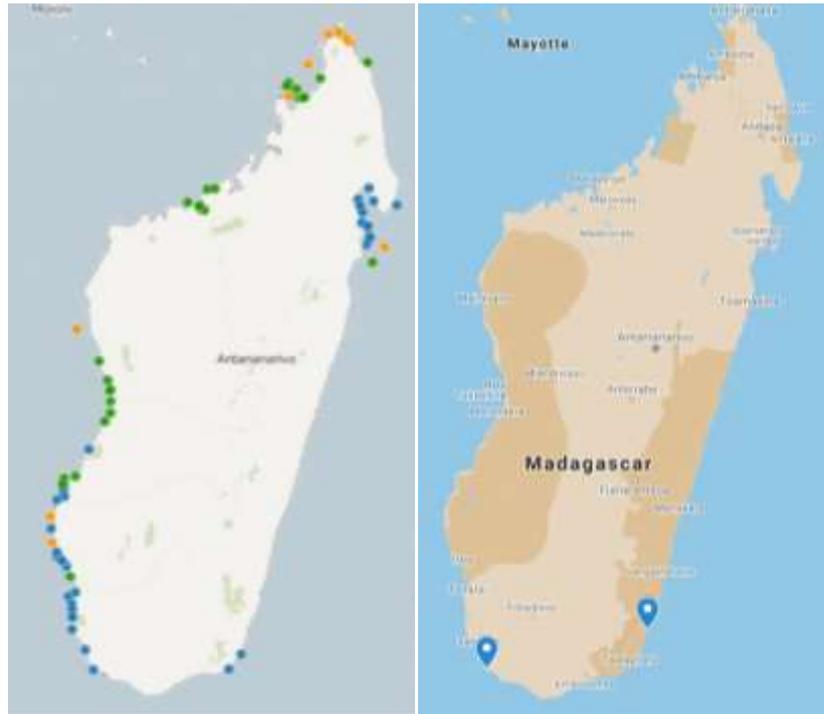
Despite providing the majority of annual catch and export and consisting of ~40 impoverished fishing communities, Madagascar's south-eastern lobster fishery has lagged behind the rest of the country. The LMMA in Sainte Luce and informal attempts at replication are the only significant examples of LMMA management in the south east. The proposed project will ensure that the south eastern is not left behind by these developments, and instead learns from and contributes to the national LMMA movement.

The project will make full use of the experience and expertise of the Velondriake LMMA, Blue Ventures and MIHARI through close collaboration. Blue Ventures will provide technical support and strategic advice throughout the project. Representatives from target communities and SEED will attend national and regional MIHARI conferences, learning from and sharing experiences with other LMMA managers and supporting NGOs. MIHARI will also use their expertise to organise a conference specifically for lobster fishers in Sainte Luce, bringing together representatives from non-target communities from throughout the lobster fishery with state, private sector and NGO stakeholders. Community representatives and project staff attend cross-visits to the Velondriake LMMA, which will provide crucial context-specific

³⁷ Westerman, K. and Gardner, C.J. (2013). Adoption of socio-cultural norms to increase community compliance in permanent marine reserves in southwest Madagascar. *Conservation Evidence* **10**, pp. 4–9.

³⁸ Oliver, T.A., Oleson, K.L.L., Ratsimbazafy, H., Raberinary, D., Benbow, S. and Harris, A. (2015). Positive Catch & Economic Benefits of Periodic Octopus Fishery Closures: Do Effective, Narrowly Targeted Actions 'Catalyze' Broader Management? *PLoS ONE* **10**(6): e0129075. <https://doi.org/10.1371/journal.pone.0129075>.

learning.



Left: coloured dots show LMMAs in the MIHARI Network. Right: Blue pins represent eastern and western extremeities of the south easter lobster fishery.

18. Ethics

Outline your approach to meeting the Darwin Initiative's key principles for research ethics as outlined in the [Guidance](#).

(Max 300 words)

All research conducted as part of the proposed project, is subject to review prior to and oversight during in line with the following principles:

The rights and welfare of human subjects are protected by; informing subjects of the objective of the research and any potential risks or benefits of participation; ensuring that the subject understands participation is voluntary and can refuse to partake or leave the study at any point; obtaining at minimum, verbal consent of participation from the subject. Subjects are informed of how data is used and research results are disseminated back to subjects. All data collected containing information identifiable to a specific individual, must be safeguarded through anonymization and accessible to authorised individuals only.

All research conducted must have the potential to yield new knowledge that participating subjects may benefit from. All research methodology is informed by international best practice and evaluated in terms of potential negative impacts; including, physical, social, financial and psychological harm to the subjects. These impacts are then, within reason, compared to the proposed benefits of the study to determine their utilisation. All enumerators are thoroughly trained in research methodology, research ethics and are obliged to be respectful and neutral in all data collection activities. Where possible participatory data collection methodologies are utilised. All methodologies are triangulated where possible, to incorporate scientific

approaches alongside local knowledge and records.

Additionally, the design of the participatory fishing monitoring programme was developed in accordance with context-specific coastal management monitoring guidelines for the Western Indian Ocean³⁹. The MPAG analysis led by Dr Peter Jones will be subject to the policies and procedures of the [UCL Research Ethics Committee](#).

19. Raising awareness of the potential worth of biodiversity

If your project contains an element of communications, knowledge sharing and/or dissemination please provide a description of your intended audience, how you intend to engage them, what the expected products/materials will be and what you expect to achieve as a result. For example, are you expecting to directly influence policy in your host country or is your project a community advocacy project to support better management of biodiversity?

(Max 300 words)

Target Communities:

Cross-visits between, to the Sainte Luce and Velondriake LMMAs, will enable community managers to observe aspirational models, improve their knowledge of best practice and share ideas.

An education programme delivered in part by fisher-ambassadors will maintain community-wide support for management measures in an ecosystems services framework. This will increase compliance and begin to establish the conditions for broader conservation activities. Taking an engaging, participatory approach, underwater video taken by fishers will be relayed through using innovative and engaging applications with support from Blue Ventures.

Regional Lobster fishery:

An outreach programme will be directed at fishing communities throughout the regional lobster fishery. This will include community meetings, the production and distribution of a lobster fisheries management handbook and the distribution of a children's educational comic book (designed during the pilot). Fisher representatives from communities across the regional fishery, state actors, private sector NGOs and academic researchers will attend two lobster-specific forums led by MIHARI.

This programme is crucial for fostering replication. Furthermore, few communities in the regional fishery have positive experiences of interacting with state or private sector. To improve regional environmental governance, it is essential to build relationships between communities and a diversity of actors with a stake in the fishery.

National and International:

All results, reports, research and resources will be shared directly with government, private sector and NGO stakeholders to compliment active capacity building and information sharing. SEED's catch monitoring data is rigorous and detailed, and is therefore uniquely placed to inform government policy and private sector activity.

All materials will be posted on SEED's website, and shared by Blue Ventures and MIHARI to maximise reach.

Both Blue Ventures and MIHARI have a permanent presence in the capital, Antananarivo and

³⁹ Malleret-King D, Glass A, Wanyonyi I, Bunce L, Pomeroy B. Socio-economic Monitoring guidelines for coastal managers of the Western Indian Ocean, SocMon WIO. CORDIO East Africa publication. 2006.
R24 St2 Form

will provide support with government liaison and engagement at the national level.

20. Capacity building

If your project will support capacity building at institutional or individual levels, please provide details of what form this will take and how this capacity will be secured for the future.

(Max 300 words)

Institutional capacity building focused on close support of DRRHP, URL and UoT will provide a sustainable framework. SEED will build the research capacity of URL and IST through training, equipment, academic partnership and student placement. Data analysis from both internationally and locally-driven research will be regularly fed back to all stakeholders and communities in particular, providing an evidence base from which to advocate for and work towards improved regional fishery governance. Integration of institutional bodies in participatory stakeholder meetings and the inclusion of stakeholders from the wider NRM landscape will ensure mutual understanding and learning in the wider framework of ecosystems services, engendering support for biodiversity across both marine and terrestrial areas.

SEED will work with key individuals and community structures to ensure activities are locally driven and will support the establishment of registered associations with over 850 fishers. Extensive training will support the adoption of transparent, effective, evidence-based processes and management measures with representatives presenting at MIHARI forums and a new Lobster fishery conference, and attending learning exchanges to the Velondriake LMMA.

Six participatory data collectors will be trained in fishery monitoring, species identification and smartphone data collection.

20 *rabbeteurs* (a predominantly female group) and 15 *collecteurs*, buyers at the first and second points of sale respectively, will receive training to reduce demand for lobster caught in contravention to national law or community management measures.

By ratifying *dina*, establishing reporting procedures and delivering training, SEED will build the capacity of Gendarmerie and DRRHP to support communities with enforcement.

Broad-based information and understanding of the work of community managers, will take place through radio broadcasts, community feedback meetings, school sessions and mass mobilisations. Key themes will include LMMA principles, national legislation, lobster biology and ecosystems services.

21. Access to project information

Please describe the project's open access plan and detail any specific funds you are seeking from Darwin to fund this.

(Max 250 words)

The project will result in a minimum of two open access, peer reviewed publications. A case study analysis at the outset applying the Marine Protected Area Governance (MPAG) framework, led by Dr Peter Jones (UCL), target journal Marine Policy. An analysis of participatory fishery monitoring data with specific reference to NTZ impacts, compliance and size distributions: led by Stephen Long, target journal PLOS ONE. In kind support means that SEED is not seeking any specific funds for publication, with the exception for the \$2,450 open

access fee for the Marine Policy. We believe that this cost is justifiable due to the journal's suitability, impact factor and pre-eminence in this field.

All results, research, reports and resources will be shared directly with project stakeholders, shared on SEED's website and disseminated through relevant national networks including MIHARI and the PHE network. With support from Blue Ventures, SEED will create an online open access platform on which all catch monitoring data will be accessible.

All data and results will be fully anonymised and regularly repatriated to communities themselves in accessible formats such as oral presentations at community meetings.

With support from Blue Ventures, SEED will conduct capacity building activities with URL - Madagascar's lobster research unit - to assist them in presenting research to coastal communities in the regional lobster fishery.

Project Monitoring and Evaluation

Measuring Impact

22. Logical Framework

Darwin projects will be required to report against their progress towards their expected Outputs and Outcome if funded. This section sets out the expected Outputs and Outcome of your project, how you expect to measure progress against these and how we can verify this.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: Reduction of poverty and protection of marine biodiversity in southeast Madagascar through sustainable, community-based fisheries management			
Outcome: Strengthened local and regional capacity to implement adaptive, sustainable fishery management, economically empowering 850 fishers, contributing to poverty alleviation amongst 4,250 and protecting 480km ² of marine biodiversity in southeast Madagascar.	0.1 ≥10% increase in compliance with national legislation regarding Minimum Landing Size and prohibition on landing berried females by month 27 against baseline	0.1 Baseline conducted during Pre-Project phase in partnership with Blue Ventures (2017-2018); Participatory Fisheries Monitoring Programme in 3 target communities using ODK data collection systems; and published open access dataset from Sainte Luce 2015-2016 (Project Oratsimba); records of <i>dina</i> infringements. Method detailed in Long et al., (2017) .	Community and fisher interest in sustainable fisheries management remains high in target communities, and will result in efforts directed towards compliance to legislation
	0.2 ≥70% increase in median Catch Per Unit Effort (CPUE) during No Take Zone (NTZ) openings in Elodrato and Itapera	0.2 See 0.1	NTZ induced changes in spatio-temporal distribution of effort replicates previously documented impacts on CPUE
	0.3 ≥25% increase in lobster price/kg during NTZ openings at first point of sale in Elodrato and Itapera, and ≥10% increase during NTZ openings in Sainte Luce by month 27 against baseline	0.3 See 0.1	Continued demand for lobster on global markets and export industry in Fort Dauphin
	0.4 ≥25% reduction in household poverty levels in target communities	0.4 Baseline and endline household	BNS is the most appropriate measure of

	<p>by month 27 against baseline</p> <p>0.5 $\geq 10\%$ increase in <i>zebu</i> ownership per capita in target communities in comparison to 3 control communities by month 27</p> <p>0.6 $\geq 33\%$ increase in average lobster fishing income per fisher during NTZ openings in target communities</p> <p>0.7 $\geq 50\%$ increase in women's attendance at community meetings, with $\geq 80\%$ 'very satisfied' or 'completely satisfied' with their involvement in project activities by month 27</p> <p>0.8 $\geq 25\%$ of households reporting reduced frequency of unsustainable livelihood practices during NTZ openings against periods of NTZ closure</p> <p>0.9 Fishing gear restrictions and NTZ closures ratified into <i>dina</i> (local law) in Elodrato and Itapera by month 9</p> <p>0.10 $\geq 50\%$ of community members in Sainte Luce report 'complete support' for a permanent marine reserve in Sainte Luce by month 27</p>	<p>Modified Basic Necessities Surveys (MBNS) conducted in 3 target and 3 control communities, disaggregated by fisher/non-fisher households and gender demographics</p> <p>0.5 Before After Control Impact (BACI) study design using historical community records of <i>zebu</i> ownership by men and women, disaggregated by gender, in 3 target and 3 control communities</p> <p>0.6 Participatory fisheries monitoring programme in 3 target communities using ODK data collection systems</p> <p>0.7 Meeting attendance registers; annual Likert scale assessment</p> <p>0.8 Annual community survey, disaggregated by age, gender of household head and fisher/non-fisher households, in 3 target communities</p> <p>0.9 Written copy of <i>dina</i></p> <p>0.10 Likert scale conducted during annual community survey in Sainte</p>	<p>poverty, changes in poverty levels are directly affected by income generated through livelihood activities and external factors (infrastructure, access) remain constant</p> <p><i>Zebu</i> purchase continues to serve as a mechanism for financial saving/investment in rural communities without access to formal banking systems</p> <p>Continued demand for lobster on global markets and export industry in Fort Dauphin and CPUE will increase during NTZ openings</p> <p>Women from fisher households are motivated to engage with project</p> <p>Communities maintain motivation to implement management measures. Labour disruptions or other administrative delays do not prevent regular operation of the Provincial Court of Appeals' Fort Dauphin Tribunal, inhibiting the <i>dina</i> ratification process</p> <p>Increased income from No Take Zone Opening periods reduces frequency of damaging livelihood activities in line with pilot project</p> <p>Community and fisher interest in sustainable fisheries management</p>
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	<p>following community consultations held between months 15 and 27 and subsequent development of a preliminary participatory zoning plan for southeast Madagascar's first permanent marine reserve</p> <p>0.11 1 Marina Protected Area Governance (MPAG) analysis and published in peer-reviewed journal by month 33 and all participatory fishery monitoring data shared via open-access platform by month 33. Paper and data findings disseminated to stakeholders in appropriate forms to ensure this supports community fishery management in the region and further afield</p>	<p>Luce disaggregated by age, gender of household head and fisher/non-fisher households; written copy of proposed zoning plan</p> <p>0.11 Publication in peer reviewed open-access journals, online forums and other information platforms; historical participatory fisheries monitoring programme data sets available on open access platform</p>	<p>remains high in Sainte Luce, with significant benefits from temporary NTZ closures perceived and providing enough motivation for the community to engage in consultation for a permanent marine reserve</p> <p>Data is sufficient to produce a peer-reviewed articles</p>
<p>Outputs:</p> <p>1. Existing community-based fisheries management model strengthened in Sainte Luce and extended to neighboring communities of Elodrato and Itapera, through management measures developed and implemented by active community structures.</p>	<p>1.1 3 Fisheries Management Committees, with ≥10% women representatives, formally incorporated into the project and independently meeting by month 12</p> <p>1.2 35 Fisheries Management Committee members (15 in Sainte Luce, 10 in Elodrato, 10 in Itapera) attending 23 monthly training sessions in each target community from months 5 to 27</p> <p>1.3 Formalised NTZ encompassing ≥10% of each fishery, mapped by buoys and in operation in 3 target communities by month 9</p>	<p>1.1 Meeting attendance registers; register of members</p> <p>1.2 Meeting attendance registers</p> <p>1.3 NTZ GPS mapping; meeting attendance registers; fisher enforcement committee patrol records</p>	<p>Community and fisher interest in sustainable fisheries management remains high in target communities</p> <p>Transport between the regional capital, Fort Dauphin, and target communities remains possible, and is not affected by poor road conditions or extreme weather</p> <p>Community and fisher interest in sustainable fisheries management remains high in target communities</p> <p>Fishers are motivated to join registered</p>

	<p>1.4 ≥75% of active fishers across three target communities registered to a formal Fishers Association by month 27</p> <p>1.5 Lobster Fishery Management Handbook developed by month 22 and directly disseminated to ≥10 non-target lobster fishing communities from month 22 to 24 in partnership with the MIHARI national LMMA network</p>	<p>1.4 Certificate of Association Status; register of members</p> <p>1.5 Lobster Fishery Handbook content; travel records of project and partner staff; attendance registers for community dissemination meetings</p>	<p>association if fishers to secure access rights and protect against incoming users</p>
<p>2. Communities equipped with skills and knowledge to sustainably manage their own lobster fisheries built through increased understanding of fisheries management and ecosystems services.</p>	<p>2.1 ≥90% of adults in 3 target communities demonstrating full understanding of management measures outlined in <i>dina</i>, governance and enforcement structures and their roles by month 27</p> <p>2.2 ≥27 representatives from 3 target communities (≥9 women representatives) participating in 3 facilitated cross visits between target communities from months 7 to 24</p> <p>2.3 2 cross visits between Blue Ventures supported Velondriake LMMA and SEED supported Ste Luce LMMA are facilitated: One visit for 9 community representatives from target communities, supported by SEED</p>	<p>2.1 Annual community survey, disaggregated by age, gender and fisher/non-fisher household status</p> <p>2.2 Travel records; attendance registers</p> <p>2.3 Travel records; attendance registers</p>	<p>Community and fisher interest in sustainable fisheries management remains high in target communities</p> <p>Transport between the regional capital, Fort Dauphin, and target communities remains possible, and is not affected by poor road conditions or extreme weather.</p> <p>Regional LMMA networks remain active and transport between the regional capital, Fort Dauphin, and target communities remains possible</p>

	<p>staff to Velondriake LMMA by month 9; one visit from ≥9 fisher representatives from Blue Ventures target communities to Ste Luce LMMA by month 27</p> <p>2.4 20 <i>rabbateurs</i> (≥70% female) attending 4 education sessions on fisheries management in each target community from month 12 to 27 and demonstrate full understanding of management measures and improve understanding of ecosystems services principles</p> <p>2.5 150 students (~50% female) in Grades 4 and 5 (50 per community) participating in bi-monthly fisheries education programme and in receipt of educational comic book from month 5 to 27, with 60% of participating students demonstrating age-appropriate understanding of fisheries management measures, marine biodiversity and natural resource management by month 27</p> <p>2.6 1 regional and 1 national MIHARI network forum attended by 9 community representatives in each project year</p> <p>2.7 ≥30 representatives from non-target lobster fishing communities; representatives from 3 target communities; ≥2 representatives from private sector stakeholders;</p>	<p>2.4 Attendance registers; baseline/endline knowledge assessment questionnaire</p> <p>2.5 Attendance records; register of beneficiaries for comic book, annual knowledge assessment quiz disaggregated by age and gender</p> <p>2.6 Travel records; receipts of representative fishers and project staff; attendance register</p> <p>2.7 Travel records; attendance registers; receipts from participants provided by MIHARI</p>	<p><i>Rabbateurs</i> are engaged and actively participate in project activities</p> <p>Cooperation and sustained interest educational authorities and teachers continues and engagement is unaffected by national standardized tests</p> <p>Regional and national LMMA networks remain active</p>
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	<p>≥1 representative from regional NGO; DRRHP and URL attend 2 regional lobster stakeholder forums, coordinated by MIHARI in PY1 and PY2</p> <p>2.8 ≥3 URL representatives attending 8 skill sharing workshops and 3 research dissemination visits to target communities from months 6 to 27</p> <p>2.9 2 research students from national universities hosted for 3 months between month 10 and 27, with all research findings disseminated to target communities</p>	<p>2.8 Travel records of URL representatives; attendance registers</p> <p>2.9 MoUs with national universities; student travel records and receipts; data collected by researchers and report on findings</p>	<p>URL representatives are engaged and actively participate in project activities</p> <p>National research in the wide variety of topics related to marine livelihoods and LMMAs remains high, remoteness of site and high costs of travel to Anosy do not inhibit international research interest</p>
<p>3. Creation, ratification and effective enforcement of fisheries management <i>dina</i> (local law) in target communities alongside relevant national law, through a separation of community management and enforcement committees, and increased collaboration with regional regulatory bodies and private sector actors.</p>	<p>3.1 See 0.2</p> <p>3.2 3 fisheries management enforcement committees with 6 members per community established by month 6</p> <p>3.3 18 enforcement committee members attending 14 training sessions in each community from months 6 to 27, and ≥5 patrols conducted per week from month 10</p> <p>3.4 1:1 ratio of NTZ reported and confirmed infractions to sanctions</p>	<p>3.1 See 0.2</p> <p>3.2 Meeting attendance registers; register of members</p> <p>3.3 Attendance register; patrol records</p> <p>3.4 Patrol records of on NTZ infractions</p>	<p>DRRHP and Gendarmerie remain supportive of project activities, including reinforcement of patrols</p> <p>Enforcement bodies consistently and</p>

	<p>implemented across three target communities from month 22 to 27</p> <p>3.5 ≥2 DRRHP representatives attending 8 enforcement capacity building workshops and annual site visits to each target community between months 6 and 27</p> <p>3.6 ≥2 private sector lobster exporters, ≥1 national seafood supplier and ≥3 <i>collecteurs</i> attending 8 workshops from months 6 and 27</p> <p>3.7 Fisheries <i>dina</i> in 3 target communities formally ratified into national law by Provincial Court of Appeals' Fort Dauphin Tribunal by month 27</p>	<p>compared with records of Fisheries Management Committee on sanctions</p> <p>3.5 Attendance register</p> <p>3.6 Attendance register; meeting minutes</p> <p>3.7 Tribunal records</p>	<p>accurately complete records of infractions and prosecutions</p> <p>DRRHP remain supportive of project activities, including reinforcement of patrols</p> <p>Private sector remains active in Anosy Region and engaged with project activities</p> <p>Labour disruptions or other administrative delays do not prevent regular operation of the Provincial Court of Appeals' Fort Dauphin Tribunal, inhibiting the <i>dina</i> ratification process</p>
<p>4. Value chain opportunities leveraged to favour compliance and to transfer greater benefits to fishers, ensuring economic viability for fishers and communities to comply with national legislation and management measures.</p>	<p>4.1 See 0.2</p> <p>4.2 Private sector representatives (≥2 private sector exporters and 1 national seafood supplier) attending 2 annual stakeholder meetings (including fisher representatives, government bodies and project partners) and annual site visits to target communities from months 9 to 27</p> <p>4.3 10% increase in fishers independently owning <i>pirogues</i> (fishing boats) in target communities by month 27 compared to baseline</p>	<p>4.1 See 0.2</p> <p>4.2 Attendance registers; travel records</p> <p>4.3 Annual community survey, dissaggregated by age</p>	<p>Continued stakeholder understanding of their crucial role in increasing project longevity and sustainability of effective fisheries management, and logistical arrangements for stakeholder meetings possible, including dates and locations at which all stakeholders are available to attend</p> <p>Boat ownership continues to serve as a mechanism for financial saving/investment in fishing communities without access to formal banking systems</p>

	4.4 ≥30 fishers and ≥30 women from fisher households in each target community attend ≥4 of 5 financial management workshops conducted from month 7 to 27	4.4 Attendance register disaggregated by gender	Community interest in capacity building remains high in target communities
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23. Provide a project implementation timetable that shows the key milestones in project activities. Complete the following table as appropriate to describe the intended workplan for your project (starting from Q2 July 2018)

Please add/remove columns to reflect the length of your project. For each activity (add/remove rows as appropriate) indicate the number of months it will last, and shade only the quarters in which an activity will be carried out. The workplan can span multiple pages if necessary.

Activity	No. of months	Year 1			Year 2				Year 3			
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Output 1												
1.1 Pre-existing fisheries management committees formally incorporated into project	1											
1.2 Monthly fisheries management committee training workshops	23											
1.3 Fisheries management plan presented to wider community and stakeholders	1											
1.4 NTZ mapping and marking in Elodrato and Itapera	1											
1.5 Registration of Fishers Associations in each target community	1											
1.6 Lobster Fisheries Management Handbook developed and distributed to target communities	2											
1.7 Recruitment and training of 3 new participatory fisheries monitoring programme data collectors (1 in each target community) and continuation of participatory monitoring programme data collection in target communities	27											
1.8 Marine Protected Area Governance analysis conducted	3											
Output 2												
2.1 Quarterly community education sessions in target communities	5											
2.2 Bi-annual community meetings in target communities in target communities	5											

2.3	Quarterly women-only community meetings in target communities	4											
2.4	Bi-monthly youth education programme in target communities	12											
2.5	Annual community mass-mobilisation events in target communities	5											
2.6	IEC materials distributed across target communities	3											
2.7	Radio broadcast dissemination of project messages	30											
2.8	Fisher cross visits within target communities	3											
2.9	Fisher cross visit to Blue Ventures Velondraike LMMA	1											
2.10	Hosting of fishers from the Velondraike LMMA to Sainte Luce												
2.11	Annual regional MIHARI Sud forum an annual national MIHARI forum	6											
2.12	Madagascar's first lobster network forum held in Sainte Luce in partnership with MIHARI	2											
2.13	<i>Rabbateur</i> training sessions	4											
2.14	URL skills sharing and capacity building workshops and site visits to target communities	8											
2.15	Hosting of 2 national research students	6											
2.16	Outreach visits to non-target lobster fishing communities	23											
2.17	Quarterly Natural Resource Management meetings and community consultations in Sainte Luce to develop and present of a Sainte Luce permanent marine closure zoning plan proposal for community evaluation	8											

2.18	See 1.8												
Output 3													
3.1	Enforcement committees of 6 members formally established in each target community	1											
3.2	Enforcement committee training sessions	14											
3.3	Enforcement committees weekly patrols	24											
3.4	DRRHP capacity building and skill-sharing workshops and site visits to target communities	8											
3.5	Skill-sharing workshops with relevant private sector actors, including national and international seafood buyers	8											
3.6	Formalisation of fisheries management and enforcement plans into local <i>dina</i>	1											
3.7	See 1.8												
Output 4													
4.1	Annual stakeholder meetings in Fort Dauphin	2											
4.2	Annual site visits to target communities by key private sector stakeholders	3											
4.3	Financial management training workshops held in target communities	5											
4.4	See 1.8												
4.5	See 3.5												
Monitoring & Evaluation Plan													
a)	Participatory fisheries monitoring programme data analysed monthly & presented back to communities during relevant wider meetings and education sessions	6											
b)	Enforcement patrol records reviewed monthly by management committees	18											
c)	Modified Basic Necessities Survey (MBNS) baseline/endline conducted in 100 households in	5											

	each target communities and 3 control communities (includes pre-survey focus groups with 80 community members and piloting of survey)											
d)	<i>Zebu</i> BACI (<i>zebu</i> per capita as wealth indicator) analysis in collaboration with community managers, management committees used to inform project interventions where appropriate											
e)	Bi-annual Focus Groups with beneficiary groups in each target community, stakeholder groups and project partners to determine project satisfaction levels and obtain feedback on project activities											
f)	Annual Community Survey conducted in 100 households in each target community (survey includes fisheries management knowledge assessments, perception surveys on usage of unsustainable terrestrial livelihoods activities, the establishment of permanent marine reserve in Sainte Luce and quantitative data collection on pirogue ownership)											
g)	Annual Youth Education Programme Assessment in the form of a short quiz with all participating students											

24. Project based monitoring and evaluation (M&E)

Describe, referring to the Indicators above, how the progress of the project will be monitored and evaluated, making reference to who is responsible for the project's M&E. Darwin Initiative projects are expected to be adaptive and you should detail how the monitoring and evaluation will feed into the delivery of the project including its management. M&E is expected to be built into the project and not an 'add' on. It is as important to measure for negative impacts as it is for positive impact.

(Max 500 words)

The M&E system has been designed to: 1) maximise participation of and accountability to all stakeholders and communities particularly 2) ensure community, government and private sector decisions are evidence-based 3) continually assess project performance and adapt activities 4) build a robust body of evidence to inform, support and shape regional replication and wider coastal and marine management.

Participatory fishery monitoring programme:

Lobster catch/effort and catch composition surveys will provide crucial insights into the short and medium-term effects of the LMMA model, enabling SEED to track achievement of outcome indicators 0.1 and 0.2. These surveys have been in place since 2015 in Sainte Luce⁴⁰ and will be expanded to Elodrato and Itapera in April 2018 before project start. A one-year data set for Elodrato and Itapera will therefore be available for comparison before management measures are anticipated to be implemented. The programme will be expanded to capture price received by fishers for lobster catch, enabling a low-cost method of evaluating progress towards outcomes 0.3 and 0.6.

Results will be presented regularly to communities and fishers, ensuring management measures are responsive, adaptive and evidence-based. Combined with local ecological knowledge of the spatial distribution of lobster, fishers will be able to optimise NTZs in terms of timing and areas to maximise protection of undersized lobster and berried females. Along with results from value chain analysis, price data will enable fishers to negotiate prices with broad and accurate knowledge of the market.

Data collectors will be employed from target communities and trained by the Sainte Luce data collector.

Baseline/Endline Household Surveys:

A Modified Basic Necessities Survey⁴¹ (MBNS) will be conducted at baseline and endline, to evaluate progress towards 0.4. This approach will enable a quasi-controlled, quantitative comparison of the project's impact on poverty as defined by communities themselves. Baseline results will inform the content of financial management training.

A livelihood survey conducted immediately after each MBNS will enable evaluation of the project's impact on environmentally damaging livelihood activities (0.8). SEED's existing team of experienced enumerators will conduct the household surveys.

⁴⁰ Long, S. (2017). Short-term impacts and value of a periodic no take zone (NTZ) in a community-managed small-scale lobster fishery, Madagascar. *PLoS ONE* 12(5): e0177858. <https://doi.org/10.1371/journal.pone.0177858>

⁴¹ Wilkie, D., Wieland, M. and Dutoeuf, D. (2015). *A guide to the modified Basic Necessities Survey: Why and how to conduct BNS in conservation landscapes*. WCS, New York, USA.

Wealth Proxy (Zebu) Pilot:

Complementing the MBNS, SEED will pilot analysis of *zebu* ownership as a proxy indicator of wealth (0.5). Zebu have social, economic and cultural value across Madagascar⁴² and are the only asset for which accurate, historical records are kept at community level. This may pioneer an extremely low-cost, contextually-appropriate method for evaluating impacts of conservation and development programs across Madagascar.

Qualitative Monitoring:

Quarterly focus groups held separately from men and women, and semi-structured key-informant interviews will be conducted throughout. These will play a vital role in enabling SEED to gauge stakeholder perceptions and capture unintended outcomes, enabling activity adaptation.

Support and Management:

The M&E Specialist will manage and coordinate the M&E process, with methodological and statistical oversight from the Fisheries Consultant.

With extensive experience in monitoring and evaluation in a similar context, BV will support the development and implementation of all M&E activities. This will include training on and set up of smartphone data collection systems using [ODK](#).

Number of days planned for M&E	155 + (425 days for participatory fisheries monitoring programme)
Total project budget for M&E	£29,955
Percentage of total project budget set aside for M&E	10%

⁴² Klein, J. and Edwards, M.E. (2008). Zebu landscapes: conservation and cattle in Madagascar. In: Kaufman, J.C. ed. *Greening the Great Red Island: Madagascar in Nature and Culture*. Africa Institute of South Africa: Pretoria, South Africa, pp.157-178.

Funding and Budget

Please complete the separate Excel spreadsheet which provides the Budget for this application. Some of the questions earlier and below refer to the information in this spreadsheet. You should also ensure you have read the '[Finance for Darwin and Illegal Wildlife Trade Challenge Fund](#)' document and considered the implications of payment points for cashflow purposes.

NB: The Darwin Initiative cannot agree any increase in grants once awarded.

25. Value for Money

Please explain how you worked out your budget and how you will provide value for money through managing a cost effective and efficient project. You should also discuss any significant assumptions you have made when working out your budget.

(max 300 words)

SEED maintains a commitment to cost-effective projects, with minimal overhead spending. The majority of the SEED team is based in-country at our office in Fort Dauphin, with just 2 full-time staff members located in SEED's London office. All project expenditure is overseen by SEED's in-country Director of Programmes and Operations (Project Lead) and Head of Finance in line with SEED's Procurement Procedures which are underpinned by a commitment to value for money and prioritises local procurement.

The project budget has been developed based on both the considerable past experience of SEED's projects in southeast Madagascar, including actual spend from the pilot project, and in consultation with project partners and stakeholders. The work plan and budget have been developed and rigorously analysed with economy, efficiency and cost-effectiveness considered at every stage. We are confident that the budget accurately reflects the essential costs of achieving the project outcome and represents excellent value for money.

Extensive capacity building and collaboration with a diversity of actors well placed to employ incentives in the regional governance framework will ensure that project impact is not limited to the target communities but extends throughout the regional fishery.

Partnerships combining world-class academic expertise, technical support from organisations with proven national track records and SEED's local knowledge and strong relationships will maximise cost-effectiveness.

Remuneration for staff and partners has been set to maximise economy while ensuring the project team has the necessary skills to deliver results. National staff are employed by the project wherever possible, with all international staff playing an active capacity building role. The highly participative approach to both M&E and community education through the use of fisher-ambassadors maximises economy and cost efficiency while ensuring improved knowledge and skills remain within target communities.

In kind support has been secured from several sources.

26. Capital items

If you plan to purchase capital items with Darwin funding, please indicate what you anticipate will happen to the items following project end.

(max 150 words)

SEED have requested a total of £10,876 towards the capital costs necessary to implement the project, representing 4% of the total budget.

The most significant proportion of these capital costs is the purchase of two motorbikes and two bicycles (total: £4,973). Both target and non-target communities are geographically isolated, with poor road access often exacerbated by bad weather. Bicycles and motorbikes provide a quick, affordable transport mechanism to ensure key staff can travel to communities easily.

Additional capital equipment costs for SEED includes three laptops, two video cameras, a projector, a GPS unit, and smartphones for project staff. Partner capital equipment costs include a laptop and smartphones and a GPS unit.

SEED have requested a total of £10,876 towards the capital costs necessary to implement the project, representing 4% of the total budget.

The most significant proportion of these capital costs is the purchase of two motorbikes and two bicycles (total: £4,973). Both target and non-target communities are geographically isolated, with poor road access often exacerbated by bad weather. Bicycles and motorbikes provide a quick, affordable transport mechanism to ensure key staff can travel to communities easily.

Additional capital equipment costs for SEED includes three laptops, two video cameras, a projector, a GPS unit, and smartphones for project staff. Partner capital equipment costs include a laptop and smartphones and a GPS unit.

All capital items not retained by project partners will be used by SEED's implementation staff working on projects under SEED's Environment, Conservation and Sustainable Livelihoods programme, including continued marine management and conservation work.

27. Match funding (co-finance)

a) Secured

Provide details of all funding successfully levered (and identified in the Budget) towards the costs of the project, including any income from other public bodies, private sponsorship, donations, trusts, fees or trading activity.

Confirmed:

Blue Ventures

Support for participatory fisheries monitoring programme salaries in 3 target communities for 2 months as part of pre-project phase (2017-2018).

Total value of funds secured = **£XXX**

Blue Ventures in-kind support includes: MEL advisory (including: open access data platform development; ODK systems development; and participatory monitoring techniques); NTZ technical support and supporting the visit by Velondraike fisher to Sainte Luce.

Total estimated value of in-kind support secured = **£X,XXX**

Open Access Journal Publication

The project's Fisheries Consultant, Stephene Long, has secured in-kind support for any open access journal publication via the [PLoS ONE](#) platform.

The total in-kind value of one open access publication = **£X,XXX**

Overboard

Waterproof bag and case company, [Overboard](#), have committed to supporting SEED's fieldwork with an annual in-kind donation of products. For the project, 12 waterproof phone cases will be provided in-kind.

The total in-kind retail value = **£XXX**

Total value of match funding/in-kind support = £X,XXX (2% of total budget)

27b) Unsecured

Provide details of any matched funding where an application has been submitted, or that you intend applying for during the course of the project. This could include matched funding from the private sector, charitable organisations or other public sector schemes.

Date applied for	Donor organisation	Amount	Comments

27c) None

If you are not intending to seek matched funding for this project, please explain why.

(max 100 words)

28) Financial Management Risks

Explain how you have considered the risks and threats that may be relevant to the success of this project, including the risks of fraud or bribery.

(max 200 words)

SEED's Risk Management Framework includes an internal audit function led by Trustees from the Risk and Audit sub-committee, providing ongoing indication and mitigation of risk reported quarterly to the wider Trustee body. SEED's financial procedures were extensively externally audited in April 2016 by [Alexanna Ltd](#) on behalf [Mannion Daniels](#) in both the UK and Madagascar, and found to be fit for purpose. Key financial staff each have more than a decades' experience with multiple safeguards in place to assure good practice.

SEED's robust adherence to its Bribery and Corruption policy along with Financial and Procurement procedures strictly regulates internal and external practice.

Risk/Mitigation Summary:

- Political instability: *Mitigation:* close monitoring and government liaison.
- Partnership expenditure: *Mitigation:* trusted partners selected, memoranda of understanding obliging adherence to SEED's Bribery and Corruption Policy, monitor partner expenditure.
- External factors reduce regional lobster population: *Mitigation:* secure increased price.
- Export demand for lobster diminishes *Mitigation:* promote demand for sustainable catch

nationally.

- Loss of community support *Mitigation*: regular pre-project liaison, community-wide education programme, utilise fisher-ambassadors.
- Recruitment delays activities. *Mitigation*: conservative recruitment period and advertise through partners.
- Inequitable benefit sharing *Mitigation*: gender-focused financial training, qualitative feedback loops from broad stakeholder groups.
- Exchange rates fluctuation. *Mitigation*: conservative rate selected.

FCO Notifications

Please check the box if you think that there are sensitivities that the Foreign and Commonwealth Office will need to be aware of should they want to publicise the project's success in the Darwin competition in the host country.

Please indicate whether you have contacted your Foreign Ministry or the local embassy or High Commission (or equivalent) directly to discuss security issues (see Guidance) and attach details of any advice you have received from them.

Yes (no written advice) **Yes, advice attached** **No**

Certification

On behalf of the trustees/company* of
(*delete as appropriate)

I apply for a grant of £ _____ in respect of **all expenditure** to be incurred during the lifetime of this project based on the activities and dates specified in the above application.

I certify that, to the best of our knowledge and belief, the statements made by us in this application are true and the information provided is correct. I am aware that this application form will form the basis of the project schedule should this application be successful.

(This form should be signed by an individual authorised by the applicant institution to submit applications and sign contracts on their behalf.)

- I enclose CVs for key project personnel and letters of support.
- I enclose our last two sets of signed audited/independently verified accounts and annual reports

Name (block capitals)	MARK JACOBS
Position in the organisation	Managing Director

Signed** **Date:**

If this section is incomplete or not completed correctly the entire application will be rejected. You must provide a real (not typed) signature. You may include a pdf of the signature page for security reasons if you wish. Please write PDF in the signature section above if you do so.

Stage 2 Application – Checklist for submission

	Check
Have you read the Guidance ?	Yes
Have you read and can you meet the current Terms and Conditions for this fund?	Yes
Have you provided actual start and end dates for your project?	Yes
Have you provided your budget based on UK government financial years i.e. 1 April – 31 March and in GBP?	Yes
Have you checked that your budget is complete , correctly adds up and that you have included the correct final total on the top page of the application?	Yes
Has your application been signed by a suitably authorised individual? (clear electronic or scanned signatures are acceptable)	Yes
Have you included a 1 page CV for all the key project personnel identified at Question 6 and Question 10?	Yes
Have you included a letter of support from your <u>key</u> partner organisations identified at Question 9?	Yes
Have you been in contact with the FCO in the project country/ies and have you included any evidence of this?	Yes
Have you included a signed copy of the last 2 years annual report and accounts for the lead organisation?	Yes
Have you checked the Darwin website immediately prior to submission to ensure there are no late updates?	Yes

Once you have answered the questions above, please submit the application, not later than 2359 GMT on Monday 29 January 2018 to Darwin-Applications@ltsi.co.uk using the application number (from your Stage 1 feedback letter) and the first few words of the project title **as the subject of your email**. If you are e-mailing supporting documentation separately please include in the subject line an indication of the number of e-mails you are sending (eg whether the e-mail is 1 of 2, 2 of 3 etc). You are not required to send a hard copy.

Data Protection Act 1998 - Fair Processing Notice

The purpose of this Fair Processing Notice is to inform you of the use that will be made of your personal data, as required by the Data Protection Act 1998.

The Department for Environment, Food and Rural Affairs (Defra) is the data controller in respect of any personal data that you provide when you complete your application, the grant acceptance and the supplier forms.

Defra will use your personal data primarily for the purpose of processing your application for Darwin Initiative funding. By submitting an application, applicants have agreed to any disclosure of the information supplied (including the content of a declaration or undertaking) which Defra considers necessary for the administration, evaluation, monitoring and publicising of the Funds (as detailed in the paragraphs below).

A completed application form signifies agreement to place certain details of successful applications (i.e. name, title, total grant value, project summary, lead organisation and location of project work) on the Darwin Initiative websites listed below. A completed application form also signifies agreement to send data on the project proposals during the application process to British Embassies and High Commissions outside the UK, including those outside the European Economic Area.

<http://www.darwininitiative.org.uk>;

<https://www.gov.uk/government/groups/the-darwin-initiative>;

Application form data will also be processed by Defra contractors dealing with Darwin Initiative administration, monitoring and evaluation (working within relevant data protection rules).

Defra may be required to release information, including personal data and commercial information, on request under the Environmental Information Regulations 2004 or the Freedom of Information Act 2000. However, Defra will not permit any unwarranted breach of confidentiality nor will we act in contravention of our obligations under the Data Protection Act 1998. The Grantee shall assist and co-operate with the Department (at the Grantee's expense) to enable the Department to comply with its disclosure obligations under these enactments.

We may use information, including personal data, to test computer systems to ensure that they work effectively and efficiently and to develop new systems in order to improve efficiency and the service that we provide to you and other persons. Any use of information for testing or developing computerised systems will be conducted in a secure manner in accordance with the Data Protection Act 1998 to safeguard the privacy of the information that you have supplied.

Defra's Personal Information Charter, which gives details of your rights in respect of the handling of your personal data, is on the Defra section of Gov.uk. If you don't have access to the internet, please telephone the Defra helpline 08459 33 55 77 and ask to speak to the Data Protection Officer for a copy of the Information Charter.